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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,411	07/22/2002	Isao Nakashima	P1998S004	3907

7590 10/07/2004

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EXAMINER

MCAVOY, ELLEN M

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/019,411	Applicant(s) NAKASHIMA ET AL.	
	Examiner Ellen M McAvoy	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

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Specification

The disclosure is objected to because of the following informalities: The fuel oil composition of the invention is defined by relationships (1), (2) and (3). However, these relationships are not clearly set forth in the specification. For example, relationship (1) is " $0 < A \leq 4.00$ "; wherein no symbol such as $<$ or $>$ or $=$ is found between A and 4.00. Similarly, relationship (2) is " $0.04 \leq [B/C] \leq 0.40$ " wherein no symbol such as $<$ or $>$ or $=$ is found between 0.04 and $[B/C]$ and between $[B/C]$ and 0.40; and relationship (3) is " $0 < D \leq 8.0$ " wherein no symbol is found between D and 8.0.

Appropriate correction is required.

Claim Objections

Claim 1 is objected to because of the following informalities: the fuel oil composition is not clearly set forth since relationships (1), (2) and (3) appear to be missing key symbols as set forth above. Appropriate correction is required.

Claim Rejections - 35 USC § 102(b)/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nakajima et al (6,136,050) and (6,136,049), considered separately.

Nakajima et al (6,136,050) ["Nakajima ('050)"] disclose a diesel fuel oil composition comprising a base fuel which contains normal paraffin compounds having a carbon number of 20 or more at 4.0 wt. % or less, has a specific carbon number distribution in the high-boiling normal paraffin compounds, contains sulfur at 0.05 wt.% or less, and is incorporated with 0.01 to 0.1 wt.% of a flow improver and 0.002 to 0.1 wt.% of a lubricity improver. Nakajima ('050) discovered that good cold flow plugging point (CFPP) and lubricity can be secured when the base fluid satisfies the relationships $0 < A \leq 4.00$ (wt.%), wherein A is content of normal paraffin compounds having a carbon number of 20 or more; and $0.04 \leq [B/C] \leq 0.40$, wherein B is content of normal paraffin compounds having a carbon number of $n+5$, C is content of normal paraffin compounds having a carbon number of n , and $[B/C]$ is average B/C ratio, and (n) is an integer when total content of normal paraffin compounds having a carbon number of (n) or more account for 3.0 wt.% of total content of the normal paraffin compounds in the base fuel. The examiner is of the position that Nakajima ('050) anticipates the fuel oil composition for diesel engines set forth in claim 1. Applicants' invention may differ by adding another relationship to

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the fuel, that of " $0 < D \leq 8.0$ " wherein D is content (vol.%) of polynuclear aromatic hydrocarbon compounds. However, it is not clear what relationship (3) represents. And, D may be present in a negligible amount such as an amount of very slightly greater than 0 which is not seen to affect the fuel oil composition and is not seen to be patentably significant.

Nakajima et al (6,136,049) [Nakajima ('049)] also discloses a diesel fuel oil composition comprising a base fuel which contains normal paraffin compounds having a carbon number of 20 or more 4.0 wt.% or less, has a specific carbon number distribution in the high-boiling normal paraffin compounds, contains sulfur at 0.05 wt.% or less, and is incorporated with 0.01 to 0.1 wt.% of a flow improver. Nakajima ('049) discovered that good (CFPP) can be secured when the base fluid satisfies the relationships $0 < A \leq 4.00$ (wt.%), wherein A is content of normal paraffin compounds having a carbon number of 20 or more; and $0.04 \leq [B/C] \leq 0.40$, wherein B is content of normal paraffin compounds having a carbon number of $n+5$, C is content of normal paraffin compounds having a carbon number of n, and $[B/C]$ is average B/C ratio, and (n) is an integer when total content of normal paraffin compounds having a carbon number of (n) or more account for 3.0 wt.% of total content of the normal paraffin compounds in the base fuel. Nakajima ('049) teaches that the diesel fuel composition may be incorporated with other known additives for a fuel oil such as a lubricity improver. The examiner is of the position that Nakajima ('049) anticipates the fuel oil composition for diesel engines set forth in claim 1 when a lubricity improver is added. As also set forth above, applicants' invention may differ by adding another relationship to the fuel, that of " $0 < D \leq 8.0$ " wherein D is content (vol.%) of polynuclear aromatic hydrocarbon compounds. However, it is not clear what relationship (3)

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represents. And, D may be present in a negligible amount such as an amount of very slightly greater than 0 which is not seen to affect the fuel oil composition and is not seen to be patentably significant.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

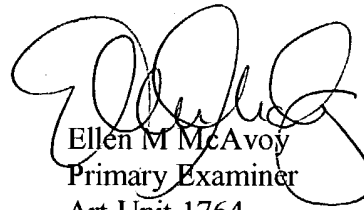
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ellen M McAvoy
Primary Examiner
Art Unit 1764

EMcAvoy
October 6, 2004